

IAP12 Rec'd PCT/PTO 04 MAY 2006

SEQUENCE LISTING
SEQUENCE LISTING

<110> International Institute of Cancer Immunology, Inc.

<120> HLA-DR-BINDING ANTIGEN PEPTIDE DERIVED FROM WT1

<130> 664758

<140> 2003-375603

<141> 2003-11-05

<160> 56

<170> PatentIn Ver. 2.1

<210> 1

<211> 449

<212> PRT

<213> Homo sapiens

<400> 1

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Met Gly Ser Asp Val Arg Asp Leu Asn Ala Leu Leu Pro Ala Val Pro
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Ser Leu Gly Gly Gly Gly Gly Cys Ala Leu Pro Val Ser Gly Ala Ala
      20      25      30
Gln Trp Ala Pro Val Leu Asp Phe Ala Pro Pro Gly Ala Ser Ala Tyr
      35      40      45
Gly Ser Leu Gly Gly Pro Ala Pro Pro Pro Ala Pro Pro Pro Pro
 50      55      60
Pro Pro Pro Pro His Ser Phe Ile Lys Gln Glu Pro Ser Trp Gly Gly
 65      70      75      80
Ala Glu Pro His Glu Glu Gln Cys Leu Ser Ala Phe Thr Val His Phe
      85      90      95
Ser Gly Gln Phe Thr Gly Thr Ala Gly Ala Cys Arg Tyr Gly Pro Phe
      100      105      110
Gly Pro Pro Pro Pro Ser Gln Ala Ser Ser Gly Gln Ala Arg Met Phe
      115      120      125
Pro Asn Ala Pro Tyr Leu Pro Ser Cys Leu Glu Ser Gln Pro Ala Ile
      130      135      140
Arg Asn Gln Gly Tyr Ser Thr Val Thr Phe Asp Gly Thr Pro Ser Tyr
      145      150      155      160
Gly His Thr Pro Ser His His Ala Ala Gln Phe Pro Asn His Ser Phe
      165      170      175
Lys His Glu Asp Pro Met Gly Gln Gln Gly Ser Leu Gly Glu Gln Gln
      180      185      190
Tyr Ser Val Pro Pro Pro Val Tyr Gly Cys His Thr Pro Thr Asp Ser
      195      200      205
Cys Thr Gly Ser Gln Ala Leu Leu Leu Arg Thr Pro Tyr Ser Ser Asp
      210      215      220

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SEQUENCE LISTING

Asn Leu Tyr Gln Met Thr Ser Gln Leu Glu Cys Met Thr Trp Asn Gln
 225 230 235 240
 Met Asn Leu Gly Ala Thr Leu Lys Gly Val Ala Ala Gly Ser Ser Ser
 245 250 255
 Ser Val Lys Trp Thr Glu Gly Gln Ser Asn His Ser Thr Gly Tyr Glu
 260 265 270
 Ser Asp Asn His Thr Thr Pro Ile Leu Cys Gly Ala Gln Tyr Arg Ile
 275 280 285
 His Thr His Gly Val Phe Arg Gly Ile Gln Asp Val Arg Arg Val Pro
 290 295 300
 Gly Val Ala Pro Thr Leu Val Arg Ser Ala Ser Glu Thr Ser Glu Lys
 305 310 315 320
 Arg Pro Phe Met Cys Ala Tyr Pro Gly Cys Asn Lys Arg Tyr Phe Lys
 325 330 335
 Leu Ser His Leu Gln Met His Ser Arg Lys His Thr Gly Glu Lys Pro
 340 345 350
 Tyr Gln Cys Asp Phe Lys Asp Cys Glu Arg Arg Phe Ser Arg Ser Asp
 355 360 365
 Gln Leu Lys Arg His Gln Arg Arg His Thr Gly Val Lys Pro Phe Gln
 370 375 380
 Cys Lys Thr Cys Gln Arg Lys Phe Ser Arg Ser Asp His Leu Lys Thr
 385 390 395 400
 His Thr Arg Thr His Thr Gly Lys Thr Ser Glu Lys Pro Phe Ser Cys
 405 410 415
 Arg Trp Pro Ser Cys Gln Lys Lys Phe Ala Arg Ser Asp Glu Leu Val
 420 425 430
 Arg His His Asn Met His Gln Arg Asn Met Thr Lys Leu Gln Leu Ala
 435 440 445

Leu

<210> 2

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Leu Val Arg His His Asn Met His Gln
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<210> 3

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Phe Lys His Glu Asp Pro Met Gly Gln
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Leu Val Arg Ser Ala Ser Glu Thr Ser
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Met Gly Gln Gln Gly Ser Leu Gly Glu
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<223> Description of Artificial Sequence:Synthetic Peptide

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Val Tyr Gly Cys His Thr Pro Thr Asp
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Phe Ile Lys Gln Glu Pro Ser Trp Gly
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Tyr Phe Lys Leu Ser His Leu Gln Met
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Phe Arg Gly Ile Gln Asp Val Arg Arg
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Leu Ser Ala Phe Thr Val His Phe Ser
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<210> 20
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<210> 21
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Tyr Gln Met Thr Ser Gln Leu Glu Cys
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<211> 16

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<210> 25

<211> 15

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SEQUENCE LISTING

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 1 5 10 15

<210> 26
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<400> 26
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Met Asn Leu

<210> 27
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<400> 27
 Cys Met Thr Trp Asn Gln Met Asn Leu
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 Arg Met Phe Pro Asn Ala Pro Tyr Leu
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SEQUENCE LISTING

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<210> 31
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<210> 33
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<223> Xaa at 1 position stands for Abu.

<400> 33
 Xaa Tyr Thr Trp Asn Gln Met Asn Leu
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<210> 34
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SEQUENCE LISTING

<223> Description of Artificial Sequence:Synthetic Peptide

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<210> 35

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<223> Description of Artificial Sequence:Synthetic Peptide

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<210> 37

<211> 9

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<223> Description of Artificial Sequence:Synthetic Peptide

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<210> 38

<211> 9

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<223> Description of Artificial Sequence:Synthetic Peptide

<400> 38

Ala Tyr Leu Pro Ala Val Pro Ser Leu
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SEQUENCE LISTING

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<210> 40
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<210> 41
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 Arg Tyr Pro Ser Ser Gln Lys Lys Phe
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<223> Xaa at 5 position stands for Abu.

<400> 43

Arg Tyr Pro Ser Xaa Gln Lys Lys Phe
1 5

<210> 44

<211> 9

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Ser Leu Gly Glu Gln Gln Tyr Ser Val
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<210> 45

<211> 9

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Asp Leu Asn Ala Leu Leu Pro Ala Val
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<211> 9

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<223> Description of Artificial Sequence:Synthetic Peptide

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Tyr Arg Ile His Thr His Gly Val Phe
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<210> 47

<211> 9

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Leu Val Arg His His Asn Met His Gln
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SEQUENCE LISTING

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<210> 49
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Leu Lys Arg His Gln Arg Arg His Thr
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Leu Lys Thr His Thr Arg Thr His Thr
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Tyr Gly Pro Phe Gly Pro Pro Pro Pro
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<223> Description of Artificial Sequence:Synthetic Peptide

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Val Arg His His Asn Met His Gln Arg
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<210> 56

<211> 9

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<400> 56

Phe Pro Asn Ala Pro Tyr Leu Pro Ser
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SEQUENCE LISTING